



Care@Home™

Emergency Pendant Advanced User Guide



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1. Overview

The Essence Emergency Pendant Advanced (EPA) and the Emergency Pendant Advanced Jewelry (EPAJ) are innovative, wearable, multi-function emergency pendants for detecting falls and signaling emergency situations, which are integrated with Care@Home™. The operation and features of both pendants are the same. In addition, the device includes BLE technology, for Indoor location tracking.

The pendant is meant to always be with the resident, worn using the supplied lanyard.

When the pendant detects a fall, or the pendant button is pressed, the pendant sends an emergency message to the control panel, which passes the message to the monitoring station.

Pendant features include:

- Fully water resistant (IP67)
- Wireless connectivity with the control panel of up to 400 m (1,312 ft.) in the open air
- Up to two years battery life
- Configurable emergency press duration
- Lightweight
- LED indication



2. Installing the Pendant



Training Video

The pendant provides the following features to residents when they are at home.

- Emergency call button
- Fall detection
- Step counting

To pair a pendant:

1. Press and hold the **PAIRING** button on the control panel until you hear the double beep.



2. Press and hold pendant button for five seconds.
3. Ensure that the pairing process is successful. The process can have the following results:

Control Panel Behavior	Meaning
EMERGENCY button ring blinks blue.	Pairing is successful
Control panel beeps and EMERGENCY button ring lights up red for two seconds.	Pairing is unsuccessful. Try again.
Control panel makes a low pitch beep and EMERGENCY button ring lights up blue as EMERGENCY button lights up red.	This pendant has already been paired with this control panel.
Control panel beeps and the EMERGENCY button ring lights up red	Control panel memory is full. No additional devices can be paired.

3. Testing Fall Detection

Testing the pendant is optional. You can use one of the following methods:

- Standard test
- Fall test

3.1. Standard Testing



Training Video

To perform the standard test:

1. Move the pendant in a circular motion three times as follows:
 - Parallel with the floor
 - Making a circle about the size of a dinner plate
 - Making one circle per second
2. While sitting, hit the pendant on your thigh three times.
3. Place the pendant on its edge on a tabletop. You can lean it at an angle against the control panel or other object.
4. Wait 20 seconds. The LED should blink red.

3.2. Fall Testing

Fall tests are recorded in the control panel log. If enabled by the administrator, fall tests also generate a medical alarm (MA). Refer to ESUGSC105 Care@Home CMS Free Fall Technical Note. Actual falls generate a medical alarm regardless of fall test settings.



Training Video

To perform the fall test:

1. Let the pendant sit on a tabletop for at least 10 seconds.
2. Hold the pendant at about the height of an upright broom - 1.2 - 1.6 m (3.9 - 5.2 ft.).
3. Immediately drop the pendant.
4. Wait 20 seconds. The LED should blink green.

4. Operating the Pendant

Manual operation of the pendant involves pressing the button on the pendant. The pendant automatically sends notifications to the control panel for certain events.

4.1. Notifications

The pendant sends notifications to the control panel for the following events:

- The resident presses the pendant button
- The pendant detects that the resident has fallen

In addition, depending on how the control panel is configured, the pendant periodically sends information to the control panel, including:

- The temperature
- The pendant battery charge percentage

4.2. LED Indications

The pendant LED lights up as shown in the following table:

LED	Situation
Blinks red for 8 seconds	Pendant button pressed
	Fall detection
	Pendant fall detection test – refer to 3 Testing Fall Detection on page 5.
Lights green for 1 second	Battery was just replaced.

4.3. Supervision

The pendant is a supervised device. The pendant periodically transmits its status to the control panel. The frequency of the reporting periods can be configured remotely. If after a pre-defined time the control panel does not receive a status message, the control panel sends a **Supervision lost** message to the monitoring station.

5. Replacing the Battery

The EPA and EPAJ use a 3 V CR2450 lithium battery.

Follow the procedure for your device:

- Replacing the EPA's battery
- Replacing the EPAJ's battery

5.1. Replacing the EPA's Battery



Training Video

To replace the battery:

1. Remove the cover by pushing the fob away from you while pulling the EPA toward you.



Caution: Avoid pressing the EPA button when opening and closing the EPA.

2. Remove the old battery.
3. Reassemble the EPA, as shown below.



5.2. Replacing the EPAJ's Battery

To replace the battery:

1. Twist a coin in the slot to open the cover.



Caution: Avoid pressing the EPAJ button when opening and closing the EPAJ.

2. Remove the old battery.
3. Insert a new battery, + side facing out.



4. Close the cover.



5. Squeeze the EPAJ and cover together. The cover clicks into place.

6. Specifications

Category	Data
Part Number	ES700EPA, ES700EPAJ
Communications	● Proprietary bi-directional radio protocol ● GFSK modulation: ■ 869.225 (Europe) ■ 868.3 MHz (China) ■ 916.5 MHz (North America and Australia) ■ 916.3 MHz (Israel) ■ 2.4 GHz BLE ● RF coverage: 400 m (1,312 ft.) – open air NOTE: Nominal RF coverage is tested over LOS free space in a low interference environment ● Encoding: 32-bit ID - over 4 billion combinations
Power	● 1 x 3 V CR2450 lithium battery ● Approved manufacturers: Panasonic and Energizer ● Up to two-year battery life NOTE: Nominal battery life is computed according to Essence's standard usage parameters.
Physical	● EPA ■ Dimensions (W x Diameter): 12 x 40 mm (0.47 x 1.58 in.) ■ Weight: 15 g (0.53 oz.) including battery, excluding lanyard ■ Color: White ● EPAJ ■ Dimensions (W x Diameter): 16 x 42 mm (0.63 x 1.65 in.) ■ Weight: 23 g (0.81 oz.) including battery, excluding chain ■ Color, excluding decoration: ◆ Body: White ◆ Button: Dark Grey

Category	Data
Environmental	● Operating ambient temperature range: -10°C - 55°C (14°F - 131°F) ● Storage ambient temperature range: -20°C - 70°C (-4°F - 158°F) ● Operating humidity: Up to 93% non-condensing ● Water and dust resistant: IP67 ● EN50130-5 Environmental Class 1
Certifications and Approvals	● CE ● FCC, IC ● UL1637 ● EN 50134-2

This device complies with FCC Rules Part 15 and with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference
- (2) this device must accept any interference received including interference that may cause undesired operation.

For Industry Canada:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage;*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For Industry Canada:

- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



Caution: Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Essence Smartcare Ltd.) could void the user's authority to operate the equipment.

Appendix A Emergency Pendant Advanced-BC

The Essence Emergency Pendant Advanced–BC (EPA-BC) is a version of the EPA designed specifically to be backward compatible with earlier versions of Care@Home™.

The EPA–BC has similar functionality and specifications to the EPA. The only difference is in how the EPA-BC communicates with the control panel when it detects a fall or the panic button being pressed. However, just as with the EPA, caregivers, family members, and the monitoring station receive notice of a fall or the panic button being pressed.

You add an EPA-BC to Care@Home™ the same way you add an EPA to Care@Home™.

For additional information, refer to the ESUGSC036 Care@Home ES700EPA-BC Datasheet.

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